PRIVATE CLOUD PRICING

Version 2.5 | October 2023

1. BARE METAL AND COMPUTING NODES

A Private Cloud environment is a cluster of private computing nodes (virtualized) and bare-metal servers (non-virtualized) that are privately interconnected with access to shared network storage resources and other optional services.

All the resources in a cluster must be located in the same datacenter except for the storage replicas, and inter-cluster private connections between different datacenters can be configured.

As of October 2023, available datacenters are: **Interxion MAD2, Interxion MAD3** and **Equinix MD2** in Madrid, Spain; and **Equinix AM5** (Network POP only) and **NorthC Almere** in Amsterdam, The Netherlands.

Stackscale's server line is based on the latest **Cascade Lake** microarchitecture from Intel®, which is the first one to introduce in-hardware mitigations for the notorious Meltdown and Spectre vulnerabilities.

	Node 128 M	Node 192 C	Node 384 M	Node 384 C	Node 768 M	Node 768 C
Optimized usage	MEMORY	CPU	MEMORY	CPU	MEMORY	CPU
CPU	1x Silver 4214R	1x Gold 6208U	2x Silver 4214R	1x Gold 6248R	2x Gold 6230R	2x Gold 6248R
Cores (Threads)	12 (24)	16 (32)	24 (48)	24 (48)	52 (104)	48 (96)
Base speed	2,4 Ghz	2,9 Ghz	2,4 Ghz	3,0 Ghz	2,1 Ghz	3,0 Ghz
Turbo speed	3,5 Ghz	3,9 Ghz	3,5 Ghz	4,0 Ghz	4,0 Ghz	4,0 Ghz
RAM	128 GiB	192 GiB	384 GiB	384 GiB	768 GiB	768 GiB
RAM speed	2400 Mhz	2933 Mhz	2400 Mhz	2933 Mhz	2933 Mhz	2933 Mhz
Internal storage	2x 1 TB SSD	2x 1 TB SSD	2x 1 TB SSD	2x 1 TB SSD	2x 1,6 TB SSD	2x 1,6 TB SSD
Capabilities	All nodes include a hardware RAID controller with **NVRAM** Up to 8 additional **SATA/SAS** local storage disks can be installed. Dual processor models support **NVMe U2** disks.					
Usage	Virtualized nodes: the two storage disks included are exclusively used by the hypervisor. Bare-metal nodes: All local storage disks are for customer use.					
Network	**40 Gbps per node** in redundant MLAG (Multi-chassis link aggregation): 20 Gbps for storage and 20 Gbps for private interconnection and Internet access.					
Setup*	€395	€545	€795	€895	€1.395	€1.650
Monthly*	€395	€545	€795	€895	€1.395	€1.650

*Taxes not included.

2. NETWORK STORAGE

Network storage relies on storage systems that are accessed over the network to provide **persistent and protected storage**. This has important advantages over the internal storage offered in the nodes, such as **the ability to expand and shrink space or upgrade and downgrade the storage type**, whenever needed and non-disruptively. But most importantly, it enables **the use of storage-less computing nodes**, that can be automatically hot replaced in the event of a hardware failure.

At Stackscale, we employ **fully redundant and fault-tolerant storage systems** that guarantee continuous data access. We also extremely care about data durability by **replicating all volumes to independent storage systems that are physically located in a different data center** (except for Archive); minimizing the chances of losing information to virtually zero.

Storage types

	Flash Premium	Hybrid Plus	Hybrid	Archive
Storage systems	NetApp AFF	NetApp FAS	NetApp FAS	NetApp FAS
Underlying storage	All Flash	Flash and SAS 10K rpm	Flash and SAS 10K rpm	NL-SAS 7K rpm
Expected latency	<=1 ms	1 – 10 ms	3 – 15 ms	>15 ms
IOPS SLA	>6.000 IOPS/TB	1.000 IOPS/TB	500 IOPS/TB	N/A
Minimum volume size	100 GB	250 GB	500 GB	1 TB
Maximum volume size	30 TB	100 TB	100 TB	1 PB*
Backups	One snapshot taken every 6 hours, 16 copies kept (4 days). Custom backup schedules available on request.			No**
Disaster Recovery	Full replica in a different data center. Hourly updated.			No**
Monthly***	€250/TB	€125/TB	€75/TB	€20/TB

*Archive volumes over 100 TB are not available in all locations.

**Although Archive doesn't include backups or replicas, you can request an Archive system that backups another Archive system in a different location.

***Taxes not included.

3. NETWORK

Stackscale is powered by a cutting-edge **multi-100 G** core network connecting every single device at a minimum of 40 Gbps and up to **800 Gbps** for main trunk connections. Internet is reached through several 100 G uplinks to major Tier 1 carriers, such as CenturyLink (formerly Level 3), Telia and GTT, and many 10/100 G connections in Internet Exchange Points, such as ESpanix, DE-CIX and AMS-IX; **totaling in excess of 1 Tbps bandwidth**.

	Monthly*
IPv6 public addresses	€0
IPv4 public addresses	€3/IP
Private network L2 (QinQ C-VLAN 802.1ad)**	€0
Private network L2/L3 (VLAN 802.1Q)	€10
Internet bandwidth (95% percentile) in Mbps	€2,5/Mbps
Internet traffic in GB	€0,02/GB
Advertisement of IPv4/6 customer prefixes	€50/prefix
External access to Stackscale network***	From €30 + data center costs
Access to external networks (Amazon AWS, Google Cloud, ...)****	From €200

*Taxes not included.

**Each environment is provided with 400 QinQ private VLANs free of charge.

***Available in all locations, port speeds from 1 G up to 2x 100 G (MLAG).

****Available speeds ranging from 50 Mbps up to 10 Gbps.

4. SOFTWARE LICENSES

Depending on the chosen virtualization stack, a commercial license may be needed. Stackscale offers perpetual VMware vSphere licenses that are suitable for use in private environments.

The software is licensed to the customer and remains valid if the contract with Stackscale is terminated. In such case, the license can be used in any other dedicated infrastructure provided that the license conditions are met.

The license price is paid in a one-time fee and there is an optional annual fee that gives access to major software upgrades. For eased administration, Stackscale pays the annual fee on behalf of the customer and charges monthly installments.

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The following table compares the main features and pricing of the available software editions for a cluster composed of 3 computing nodes with 2 physical processors each.

	Essentials	Essentials Plus	Standard	Enterprise Plus
Max nodes per vCenter	3	3	Unlimited	Unlimited
vMotion		•	•	•
vSphere HA **		•	•	•
Storage vMotion ***			•	•
VM Encryption				•
Distributed Resource Scheduler and IO controls				•
License price for 3 nodes (6 processors)*	€561,63	€4.518,89	€14.170,33[1]	€29.947,87[1]
License price per additional processor*	N/A	N/A	€1.262,14	€4.326,23
Optional monthly fee for major upgrades (3 nodes)*	€6	€70	€250	€500
License cost per node per month over 3 years*/ ****	€5,20	€41,84	€131,21	€277,30
Optional per node monthly fees for major upgrades*/ ****	€2	€23,33	€83,33	€166,66

*Taxes not included.

[1]Acceleration Kit for at least 6 processor. It includes a license for a vCenter instance.

**High Availability for computing nodes is always provided by Stackscale regardless the chosen edition. However, VMware HA provides faster recovery times in case of a hardware failure provided there are enough idle resources in the cluster.

***Storage vMotion works at VM level. Volume-level motion is provided by our Network Storage solutions.

****These are not actual charges but a monthly calculated cost aimed to compare the different options.

5. TECHNICAL SUPPORT, MONITORING AND SYSTEM ADMINISTRATION

Every Private Cloud environment is monitored 24/7 and an auto-support ticket is triggered whenever a warning, error or critical event is raised. Our support team members immediately react to assess the information received, contact the customer when required and start working in the resolution.

This service can be extended to the virtual machines on the environment and the applications running on them under a Full Managed Service contract. Please ask our sales team if you would like to receive a tailored Managed Service quotation.

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You can also request time from a System or Network administrator from our team to help you on specific tasks. This service is billed on 30 minutes increments and provided on a best-effort basis.

	Monthly*
24x7 monitoring of hardware, storage, network and hypervisors, with phone/email support desk in English and Spanish	Included
Full Managed Service	Tailored to project and billed separately
System Administration service	€80 per hour
System Administration service off business hours	€160 per hour

*Taxes not included.

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